## TWO NEW SPECIES OF BARK BEETLES OF THE GENUS PHLŒOSINUS CHAPUIS

(Coleoptera, Scolytidæ)

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While critically studying the bark beetles of western North America, I have noted that two of the species in the genus *Phlæosinus* were new. As the members of this genus are of considerable economic importance, I feel that these should be made known as soon as possible.

## Phlæosinus variolatus Bruck, n. sp.

Large, 2.5-4 mm. long, robust, dark reddish brown to black species. Head with front granulate-punctate, a deep median concavity surrounded by pubescence in the male, the depression shallow in the female and with sparse pubescence, the carina short, extending longitudinally beyond the median area of the concavity, with a short tubercular elevation at the base of the carina; antennal club twice as long as wide, the sutures moderately oblique; eyes strongly margined. Prothorax wider than long, densely, moderately coarsely punctate and somewhat pubescent, sides arcuate, very slightly sinuate anteriorly, base broad. Elytra longer than wide, striæ wider than intervals and grossly, variolately punctured, the intervals shining, slightly rugose and with a double row of small alternating punctures, with a hair arising from each puncture; first, third, fifth, seventh and ninth intervals uniseriately serrate, serrations of first interval just attaining the crest of the declivity in the male and the apex of the elytra in the female, face of the declivity in the former flat with sparse scale-like pubescence, first interval greatly widened, shining, transversely rugose, second much narrowed, with scale-like pubescence, third densely serrate with large serrations, fourth much narrowed with scale-like pubescence and met by the sparsely, moderately serrated fifth, seventh and ninth intervals and the shining and narrowed sixth and eighth intervals. The striæ of the declivity are much narrower than on the disk and the punctures greatly reduced in size. Beneath rather densely clothed with long pile.

The female, as indicate above, has the front less pubescent and less concave than the male and the serrations of the first elytral interval attain the apex. In addition the first, third, fifth, seventh and ninth intervals are uniseriately serrate, the first and third with the serrations numerous and of moderate size and globular, the fifth, seventh and ninth more sparsely serrate, with the serrations smaller,

the even intervals have a few minute tubercles as far as the declivity, the fifth, sixth, seventh and ninth intervals meet the fourth, and the flatter portions of the declivity are densely clothed with a scale-like pubescence.

This large species is one of the most distinct because of the gross strial punctuation. It would follow *cupressi* Hopk. in Swaine's <sup>1</sup> key.

Holotype No. 2993, allotype No. 2994, Mus. Calif. Acad. Sci., and a number of designated paratypes, collected on Mount St. Helena, California, February 29, 1931, by E. F. Wohletz and myself, from beneath the bark of dead Sargent Cypress, Cupressus sargenti Jepson. A pair of paratypes will be sent to Dr. Swaine for the Canadian National Museum, one pair placed in the collection of Dr. Van Dyke, deposited in the California Academy of Sciences, one pair in the collection of Mr. Wohletz and the remainder in my own collection. A very long series of specimens has been studied, three in the collection of the California Academy of Sciences, taken by Mr. E. P. Van Duzee, October 31, 1923, others by Mr. Wohletz and myself from Mount St. Helena, and a long series taken on Mount St. Helena and on Cedar Ridge, Alameda County, California.

## Phlæosinus aciculatus Bruck, n. sp.

Of moderate size, 2.0-3 mm. in length, slender, black with elytra generally reddish brown.

Head, male: Front densely punctate-granulate and shallowly impressed or almost flat; female with front convex, sparsely pubescent and with a few long hairs at the epistomal margin, the frontal carina in male barely visible at the middle of the impressed area, obliterated in the female; eyes strongly margined; antennal club twice as long as wide, the sutures slightly oblique. Prothorax somewhat wider than long, base broad and bisinuate, sides arcuate, sinuate anteriorly, disk densely, moderately coarsely punctate and somewhat pubescent. Elytra longer than wide, striæ deep and well defined laterally, less defined on the disk; the intervals, on the contrary, wide and distinctly acculate on the disk and less acciulate on the sides; striæ sparsely, finely punctate, the punctures deeper on the sides than on the disk, first interval but slightly wider than the

<sup>&</sup>lt;sup>1</sup> Canadian Bark Beetles, Pt. II, by J. M. Swaine, Bull. 14, Ent. Br., Dept. Agr., Ottawa, Canada, p. 69, 1918.

discal striæ, the others quite wide; pubescence moderate and short; declivity on the male smooth and shining; interspaces uniformly wide, first, third, fifth, seventh and ninth uniseriately serrate; the serrations of the first are few, distant and acute, of the third, smaller, more numerous, closer and acute, of the fifth, seventh and ninth, still more reduced in size and number and less acute; declivity in the female with scale-like pubescence, first interval with a row of moderately large, widely spaced and acute serrations, also a secondary series of very small serrations, more or less limited to the crest of the declivity, the second interval with fewer, smaller and more widely spaced acute serrations arranged uniseriately, the third with a greater number of closely spaced acute serrations, smaller than those of the first but equal to those of the second interval and uniseriately arranged; fifth, sixth, seventh, eighth and ninth with a few, small, widely spaced and acute serrations arranged uniseriately, those of the fourth with the aciculations somewhat more prominent at the crest. Legs and underside of body densely clothed with short pubescence.

The female, as indicated above, has the front convex, the declivity clothed with scale-like pubescence, the serrations decidedly smaller, more numerous; each interspace provided with some serrations, none being smooth, the first having a few smaller serrations at the side of the larger ones at the crest of the declivity and, as in the male, the fifth, sixth, seventh, eighth and ninth meet the fourth.

This moderately sized species is most distinct because of the densely aciculated disk and the general aciculations of the sides, the smooth declivity of the male, and the pubescence of the legs and ventral surface. It would follow *juniperi* Sw. in Swaine's <sup>2</sup> key.

Holotype, No. 2995, and allotype, No. 2996, Mus. Calif. Acad. Sci., and a number of designated paratypes, collected in the Chiricahua Mountains, Cochise County, Arizona, August 8, 1916, by V. W. Owen, probably from juniper. A pair of paratypes will be sent to Dr. Swaine for the Canadian National museum, a pair in my collection and the remainder in the collection of Dr. Van Dyke, deposited in the California Academy of Sciences. A series of twenty-four specimens have been studied, all from the collection of Dr. Van Dyke, taken by V. W. Owen.

<sup>&</sup>lt;sup>2</sup> Canadian Bark Beetles, Pt. II, by J. M. Swaine, Bull. 14, Ent. Br., Dept. Agr., Ottawa, Canada, p. 69, 1918.